REMARKS

Claims 1-10 are pending.

In the Office Action dated September 29, 2010, claims 1-3 and 5-10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Sarkkinen (U.S. Patent Publication No. 2003/0157949) and further in view of Calvignac (U.S. Patent No. 6,785,278); and claim 4 was rejected under 35 U.S.C. § 103(a) as unpatentable over Sarkkinen in view of Calvignac and further in view of Sarkkinen '212 (U.S. Patent Publication No. 2004/0102212).

REJECTION UNDER 35 U.S.C. § 103

Rejection over Sarkkinen and further in view of Calvignac

Claims 1, 5 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Sarkkinen '949 in view of Calvignac because the Office Action stated

> "*consider claims 1, 5 and 8, Sarkkinen '949 discloses a method, means and wireless station for providing a service to wireless stations through a telecommunication network, the service being identified by a unique service identifier (multicast service announcement identification information such as a multicast service address, paragraph 46) stored in the telecommunication network (UTRAN 12 and CN 10) and in at least one subscriber station among said wireless stations (UEs 14, 16), the method comprising the steps of:*
>
> 1.) *determining a paging identifier in the telecommunication network and said subscriber station including a unique service identifier (the UE receives paging indicator bits with information about current and future services transmitted or to be transmitted by the network, the paging indicator bits include identification information such as a multicast service address, paragraphs 33-35 and 46);*
>
> 2.) *associating said subscriber station with the determined paging identifier (the first four bits paging indicator bits may indicate group identification, based on which UE is authorized to receive multicasts, see paragraphs 33, 46 and 47); and*
>
> 3.) *prior to transmitting information pertaining to the service over a broadcast channel, transmitting a paging message incorporating said paging identifier to the wireless stations (the UE receives paging indicator bits with information about future services to be transmitted by the network, the paging indicator bits include identification information such as a multicast service address, paragraphs 33-35 and 46).*"

To make a determination under 35 U.S.C. § 103, several basic factual inquiries must be performed, including determining the scope and content of the prior art, and ascertaining the differences between the prior art and the claims at issue. *Graham v. John Deere Co.,* 383 U.S. 1, 17, 148 U.S.P.Q. 459 (1965). Moreover, as held by the U.S. Supreme Court, it is important to identify a reason that would have prompted a person of ordinary skill in the art to combine reference teachings in the manner that the claimed invention does. *KSR International Co. v. Teleflex, Inc.,* 127 S. Ct. 1727, 1741, 82 U.S.P.Q.2d 1385 (2007).

Here it is respectfully submitted that the obviousness rejection is defective for at least the following reasons:

Sarkkinen '949 does not disclose or hint at above listed feature 1.) of the instant invention. In particular Sarkkinen does not disclose or hint at:

"*determining a paging identifier in the telecommunication network and at said subscriber station, by applying a hash function to a data string including at least part of the unique service identifier.*" According to some embodiments of the instant invention:

> "*the paging group identifier defined by the UMTS network in order to inform the subscribed UEs of the start of a transmission for an associated service includes a hash code obtained from the unique service identifier by using a hash function*" (page 5, lines 11-14).

Contrary to that Sarkkinen '949 does not disclose or hint a group identifier or a paging identifier of such a nature at all. Sarkkinen discloses:

> "*The RNC <u>continuously</u> sends multicast short-term service announcement in a <u>frame</u> over a channel such as a paging indicator channel (PICH). The mobile network is operably connected to the UTRAN through the RNC. The enhanced frame on PICH may include a type field and an indication field where the type field contains information related to the type of information in the indication field.*" (paragraph [0013], last three lines on page 1 and first three lines on page 2).

Fig. 5 of Sarkkinen '949 shows a diagram of the structure of a PICH frame according to a first example embodiment (Sarkkinen '949, paragraph [0022]. In this context Sarkkinen '949 is completely silent about the paging identifier of this frame and only lists the contents of this frame, in this case having 9 bits for an indication and three bits for an indication type. Sarkkinen '949 is thus completely silent about the paging identifier. Further at paragraph [0016] Sarkkinen '949 discloses:

> *"The RNC continuously sends multicast service announcements in a frame over a channel such as a paging indicator channel (PICH)."* (paragraph [0016] lines 6-8).

Furthermore at paragraph [0031] it is disclosed:

> *"A network may continuously indicate the status of the multicast service situation to the cell"* (paragraph [0031], lines 8 and 9).

From these two text passages of Sarkkinen '949, the skilled person can only learn that the paging indicator channel should address all user equipments within the cell and not merely particular ones which are to receive a subscribed service, as this is the case with the instant invention. Moreover, Sarkkinen '949 certainly does not disclose determining a paging identifier at the subscriber station.

Furthermore, Sarkkinen '949 does not disclose or hint at the above feature 2.) of the instant invention. Sarkkinen does not disclose or hint at the determination of a paging identifier according to the instant invention. Consequently Sarkkinen does not disclose or hint at to associate such an identifier to the subscriber station.

In addition, Sarkkinen '949 does not disclose or hint at the above feature 3.) of the instant invention. Namely, *"prior to transmitting information pertaining to the service over a broadcast channel, transmitting a paging message"* is not disclosed by Sarkkinen.

Conversely, Sarkkinen discloses to transmit multicast service announcement in a frame continuously.

> *"The RNC continuously sends multicast service announcements in a frame over a channel such as a paging indicator channel (PICH)."* (paragraph [0016] lines 6-8).

"Continuously" is not *"prior."* This is further supported by the disclosure of Sarkkinen '949 according to which a user equipment may join a multimedia broadcast session while this is already ongoing:

> *"Further, a user equipment as capable of joining to the multicast session even though the session is already going on"* (paragraph [0052] right column lines 3-5).

To summarize:

Sarkkinen '949 does not disclose or hint at features 1.) to 3.) of the instant invention listed above.

In the analysis, the Office Action further recognized:

> "*Sarkkinen '949 does not expressly disclose applying a hash function to a data string including at least part of the unique service identifier*" (page 3 lines 8 and 9).

However, the Office Action relied on Calvignac who according to the office action discloses:

> "*applying a hash function to a data string including at least part of the unique service identifier (Calvignac discloses that the use of a hash function in an IP routing is well-known in the art. By applying a hash function to a 30 bit IP address, the number of bits is reduced) (see column 1, lines 17-26).*

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply a hash function as disclosed by Calvignac to the data string including at least part of the unique service identifier. (page 3, lines 10-16).

When the skilled person considers the citation Calvignac and if hypothetically Calvignac would be combined with Sarkkinen '949, then a hash function would be applied to an identifier of a frame transmitted on a paging indicator channel e.g. the frame number of any of the frames shown in Figures 5 to 9. However, as elaborated above when discussing the disclosure of Sarkkinen '949, the paging identifier according to Sarkkinen is in no way disclosed to be related to the service identifier. Consequently if the teaching of Calvignac and Sarkkinen '949 were to be combined, they would not lead to

> "*applying a hash function to a data string including at least part of the unique identifier for said service.*"

as claimed by feature 2.) of the instant invention. Moreover, Calvignac certainly does not disclose the application of a hash function

"*by applying a hash function to a data string including at least part of the unique service identifier*" at the subscriber station.

In view of the foregoing, it is respectfully submitted that claim 1 is non-obvious over Sarkkinen '949 in view of Calvignac.

Independent claims 5 and 8 parallel the features of independent claim 1 and thus are allowable over the cited references for similar reasons. Therefore, it is respectfully submitted that the obviousness rejection be withdrawn.

Rejection over Sarkkinen '949 in view of Calvignac further in view of Sarkkinen '212

Claim 4 was rejected under 35 U.S.C. 103(a) as unpatentable over US Patent Application Publication No.: US 2003/0157949 A1 (Sarkkinen '949) and further in view of US Patent Publication No.: US 6 785 278 B1 (Calvignac), and further in view of US Patent Application Publication No.: US 2004/0102212 A1 (Sarkkinen '212).

It is respectfully submitted that this §103 rejection is defective for at least the following reason:

Claim 4 is dependent on claim 1. As discussed above the features of claim 1 are not disclosed by a combination of Sarkkinen '949 and Calvignac. Thus dependent claim 4 containing additional limitations is allowable for similar reasons as claim 1.

CONCLUSION

Dependent claims are allowable for at least the same reasons as corresponding independent claims. In view of the defective obviousness rejections of base claims, it is respectfully submitted that the obviousness rejections of dependent claims are also defective.

Allowance of all claims is respectfully requested.

The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 14-1315 (15975ID).

Respectfully submitted,

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